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1		DIRECT TESTIMONY OF
2		ROBERT A. LAWYER
3		ON BEHALF OF
4		THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF
5		DOCKET NO. 2019-182-E
6		IN RE: SOUTH CAROLINA ENERGY FREEDOM ACT (H.3659)
7		PROCEEDING INITIATED PURSUANT TO S.C. CODE ANN. SECTION 58-
8		40-20(C): GENERIC DOCKET TO (1) INVESTIGATE AND DETERMINE
9		THE COSTS AND BENEFITS OF THE CURRENT NET ENERGY
10		METERING PROGRAM AND (2) ESTABLISH A METHODOLOGY FOR
11		CALCULATING THE VALUE OF THE ENERGY PRODUCED BY
12		CUSTOMER-GENERATORS
13	Q.	PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.
14	Α.	My name is Robert A. Lawyer. My business address is 1401 Main Street, Suite 900,
15		Columbia, South Carolina 29201. I am employed by the State of South Carolina as Deputy
16		Director of Energy Efficiency and Renewables in the Utility Rates and Services Division
17		of the Office of Regulatory Staff ("ORS").
18	Q.	PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.
19	Α.	I received my Bachelor of Science in Financial Management from Clemson
20		University in 1994. Prior to my employment at ORS, I held a variety of positions in finance,
21		accounting, auditing and management. I joined ORS in 2007 as an Auditor and assumed
22		my current position in November 2019.

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1	Q.	HAVE YOU TESTIFIED BEFORE THE PUBLIC SERVICE COMMISSION OF
2		SOUTH CAROLINA ("COMMISSION")?
3	A.	Yes. I have previously testified before the Commission.
4	Q.	WHAT IS THE MISSION OF ORS?
5	A.	ORS represents the public interest as defined by the South Carolina General
6		Assembly as:
7 8 9 10		[T]he concerns of the using and consuming public with respect to public utility services, regardless of the class of customer and preservation of continued investment in and maintenance of utility facilities so as to provide reliable and high-quality utility services.
11	Q.	WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?
12	A.	The purpose of my direct testimony is to set forth and support ORS's review
13		analyses and resulting recommendations in compliance with S.C. Code Ann. § 58-40-20(C)
14		of the South Carolina Energy Freedom Act ("Act 62").
15	Q.	WAS THE REVIEW AND ANALYSES PERFORMED BY YOU OR UNDER YOUR
16		SUPERVISION?
17	Α.	Yes. The review and analyses to which I testify were performed by me or under my
18		supervision.
19	Q.	PLEASE DETAIL THE REQUIREMENTS OF S.C. CODE ANN. § 58-40-20(C) OF
20		ACT 62.
21	A.	Act 62 provides the following requirements:
22 23		(C) No later than January 1, 2020, the commission shall open a generic docket to:
24		(1) investigate and determine the costs and benefits of the current net energy

metering program; and

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(2) establish a methodology for calculating the value of the energy 1 2 produced by customer-generators. 3 Q. **PLEASE DETAIL** THE **CRITERIA** BY WHICH **ORS OFFERS** RECOMMENDATIONS IN THIS GENERIC DOCKET. 4 5 ORS relied on the criteria set forth in S.C. Code Ann. § 58-40-20(D) of Act 62 A. which states: 6 7 (D) In evaluating the costs and benefits of the net energy metering program. the commission shall consider: 8 9 (1) the aggregate impact of customer-generators on the electrical utility's long-run marginal costs of generation. distribution, and transmission; 10 (2) the cost of service implications of customer-generators on other 11 customers within the same class, including an evaluation of whether 12 13 customer-generators provide an adequate rate of return to the electrical 14 utility compared to the otherwise applicable rate class when, for analytical purposes only, examined as a separate class within a cost of service study; 15 16 (3) the value of distributed energy resource generation according to the methodology approved by the commission in Commission Order No. 2015-17 18 194; 19 (4) the direct and indirect economic impact of the net energy metering 20 program to the State; and 21 (5) any other information the commission deems relevant. 22 Q. DID ORS RETAIN ANY EXPERT WITNESSES FOR THIS PROCEEDING? 23 Yes. ORS retained two (2) expert witnesses for this proceeding: Brian Horii, a Α. 24 Senior Partner with Energy and Environmental Economics, Inc. ("E3") and Dr. John C. 25 Ruoff, Principal and Owner of The Ruoff Group. WHAT ARE THE PURPOSES OF ORS'S EXPERT WITNESS' DIRECT 26 Q. 27 TESTIMONIES IN THIS PROCEEDING?

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The purpose of Mr. Horii's direct testimony is to discuss E3's analyses and review
pursuant to Section 58-40-20(C) of Act 62 and present recommendations for the
Commission's consideration. Mr. Horii will also address how avoided and embedded cos
of service ("COS") studies should be evaluated and utilized in the design of the Solar
Choice Metering Tariffs to be considered in future proceedings pursuant to Section 58-40-
20(F) of Act 62.

The purpose of Dr. Ruoff's direct testimony is to address the impact of cost-shift or cross-subsidization of NEM customers by customers who do not have, do not want, and cannot afford to install solar generation. Dr. Ruoff discusses the economic characteristics of those who have NEM rooftop solar, the energy burden for low-income South Carolinians, and certain ways solar access may benefit low-income communities.

Both of ORS's expert witnesses have testified numerous times before this Commission.

PLEASE PROVIDE AN OVERVIEW OF EXHIBIT BKH-2 ATTACHED TO THE Q. DIRECT TESTIMONY OF ORS WITNESS HORII.

Exhibit BKH-2, "Discussion of South Carolina Act 236: Version 2.0," is the collaborative result of a diverse group of stakeholders from the state's energy sector regarding the future of distributed energy resources ("DER") in South Carolina. Stakeholders included representatives from private and public electric utilities and cooperatives, renewable energy developers and solar industry groups, environmental and environmental justice organizations, consumer advocates, large energy users, and researchers from the Savannah River National Laboratory. The group was convened in 2018 by ORS and facilitated by the ORS Energy Office. E3 was retained as an independent October 8, 2020

consultant by ORS to participate in these meetings, conduct analyses, and produce this
report summarizing relevant key issues for a potential version 2.0 of Act 236. The
collaborative discussions among the stakeholders translated into certain aspects of Act 62.
The resulting report highlights topics addressed by the stakeholders, areas of disagreement,
and perspectives on how other states have grappled with similar situations facing DER

Q. PLEASE SUMMARIZE ORS'S RECOMMENDATIONS BASED ON THE REVIEW AND ANALYSES OF ORS EXPERT WITNESS BRIAN HORII.

- **A.** ORS offers the following recommendations based on the review and analyses of 9 Mr. Brian Horii:
 - 1. The term "cost shift" can be interpreted in different ways, so it is important to establish a clear definition of cost shift and understand the implications of the definition.
 - 2. Marginal cost is the appropriate method to estimate the cost shift which is the financial burden shifted to all customers by the installation of solar or other DER.
 - 3. Indirect economic costs and benefits should be estimated through separate analysis to allow for a thorough comparison of any marginal cost-based cost shift to the additional indirect impacts (i.e.: net benefits) of solar or other DER.
 - 4. Embedded COS studies should be conducted to comply with S.C. Code Ann. § 58-40-20(D)(2). The results, however, will not represent the actual cost shift imposed by solar and DER, but a hypothetical cost shift that is relative to a hypothetical embedded cost solar rate that currently exists.
 - 5. Embedded COS studies typically use overly simplistic determinations of peak demands that drive the need for utility capacity investments, so the utility assumptions in the studies used for this docket should be examined carefully.

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6.	The list of av	oided cost	components	adopted in	Commission	Order No	. 2015-194	l is
	appropriate							

- 7. Indirect economic costs and benefits should also be evaluated in this docket as they will help inform the appropriateness of adopting Solar Choice Metering Tariffs that may continue cost shifts.
- 8. Non-zero marginal transmission and distribution capacity costs should be included in the marginal cost-based cost shift analysis but interested parties will need the opportunity to evaluate the marginal cost estimates to eliminate problems such as those identified in the current values.
- 9. Experience in other jurisdictions shows a tendency for solar to be installed by larger more affluent households. The Commission should therefore consider the cost shift impact on not only the non-solar customers as a whole, but also the non-solar lowincome customers in particular.
- 10. Tariffs that have fixed monthly charges, time varying energy charges, and demand-based charges can be ideal rate design components for a Solar Choice Metering Tariff because customers will be charged based on how the customers impose costs on the utility.
- 11. Simpler tariffs could also be appropriate Solar Choice Metering Tariffs if those simpler tariffs are designed separate from the non-solar customer rates, based on the characteristics of solar customers, and are mandatory for solar customers.
- Q. PLEASE SUMMARIZE ORS'S RECOMMENDATIONS BASED ON THE REVIEW AND ANALYSES OF ORS EXPERT WITNESS DR. JOHN C. RUOFF.

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1 ORS offers the following recommendations based on the review and analyses of Α. 2 Dr. John C. Ruoff: 1. In this evaluation and the subsequent Solar Choice Metering Tariff discussion, the 3 4 Commission should take steps to ensure that low and moderate income customers, who 5 do not have access to solar and who cannot afford solar, should not pay more for the 6 energy in order to subsidize or incentivize rooftop solar. 7 2. The Commission should challenge the solar industry to present creative ways to make 8 solar adoption more attractive and accessible for low-income utility customers while 9 maintaining a fair allocation of the costs and benefits to minimize any cost shift. 10 WILL YOU UPDATE YOUR DIRECT TESTIMONY BASED ON INFORMATION Q. 11 THAT BECOMES AVAILABLE? 12 Yes. ORS fully reserves the right to revise its recommendations via supplemental Α. testimony should new information not previously provided by the Company, or other 13 14 sources, becomes available. 15 DOES THIS CONCLUDE YOUR DIRECT TESTIMONY? Q. 16 Yes. A.